UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 7 2012

REPLY TO THE ATTENTION OF:
WC-15J

CERTIFIED MAIL 7009 1680 0000 7669 4575
RETURN RECEIPT REQUESTED

Darryl Koski
Operations Manager
L'Anse Warden Electric Company
157 South Main Street
L'Anse, Michigan 49946

Subject: **April 2012 Compliance Evaluation Inspection**

Dear Mr. Koski:

Protecting water quality is a high priority of the U. S. Environmental Protection Agency. Pollutants discharged to waterways contribute to poor water quality and impairment of uses of those waterways.

Enclosed, please find a copy of the U.S. Environmental Protection Agency Inspection Report for the April 26 through April 27, 2012 inspection of L'Anse Warden Electric Company's John H. Warden Station. The purpose of the inspection was to evaluate and document compliance with the Clean Water Act.

If you have any questions, please contact Jeremy Deyoe of my staff at (312) 353-8512.

Sincerely,

Barbara VanTil,
Chief, Water Enforcement & Compliance Assurance
Section #1

Enclosures

cc: Mike Masterson, MDEQ
Randy Conroy, MDEQ
J.R. Richardson, L'Anse Warden Electric Company

CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5

Purpose:
Compliance Evaluation Inspection

Facility:
L'Anse Warden Electric Company
John H. Warden Station
157 South Main Street
L'Anse, Michigan 49946
46.755555, -88.455555

NPDES Permit Number:
MI0006092

Date of Inspection:
April 26 –April 27, 2012

EPA Representatives:
Jeremy Deyoe, Environmental Engineer (312) 353–8512

Michigan Department of Environmental Quality Representative:
Randy Conroy, Upper Peninsula District Geologist (906) 346–8300

Facility Owner:
L'Anse Warden Electric Company, LLC

Report Prepared by:
Jeremy Deyoe, Environmental Engineer (312) 353-8512

Report Date:
July 20, 2012

Inspector Signature_____

BACKGROUND

The purpose of this report is to describe, evaluate and document L'Anse Warden Electric Company's (LWEC) compliance with sections 301 and 402 of the Clean Water Act (CWA). The inspection was at LWEC's John H. Warden Station (JHWS) in the city of L'Anse, in Baraga County Michigan on April 26 and April 27, 2012.

JHWS is a 17.7 MW net, biomass-fired steam electric power plant located at 157 South Main Street, L'Anse, Michigan. The plant was originally a coal-fired steam electric power plant. JHWS began biomass fueled commercial operations in 2009.

JHWS is bordered on its southwest side by Falls River. Keweenaw Bay, Lake Superior is northwest of JHWS, within 300 feet.

JHWS is permitted by Michigan Department of Environmental Quality (MDEQ), National Pollutant Discharge Elimination System (NPDES) permit number MI0006092, to discharge its cooling water to Falls River and its process wastewater, storm water, and intake screen backwash to Lake Superior (Keweenaw Bay). On February 10, 2012 LWEC submitted an application to renew the current NPDES permit which expires on October 1, 2012.

As part of NPDES permit MI0006092, LWEC must prepare a Storm Water Pollution Prevention Plan (SWPPP) for JHWS. All of the required components of the SWPPP are identified in the NPDES permit. JHWS has only one discrete storm water outfall, outfall 002, which is the discharge from effluent pond 3. In addition to storm water, effluent pond 3 also receives boiler blowdown and other low volume process wastewaters.

JHWS uses biomass to produce steam that is either sent to CertainTeed Gypsum and Ceiling Manufacturing, Inc (CertainTeed) or used on site to produce electricity. Steam is transferred to CertainTeed who uses steam in its industrial processes. The steam is subsequently returned to JHWS via pipeline.

The most abundant biomass fuels used at JHWS include wood chips from logging operations and creosote or pentachlorophenol chipped railroad ties. Additional fuels include paper mill wood residue and tire derived fuels (TDF). TDFs consist of specific sections of spent tires that have been processed into small pieces.

Wood chips and railroad ties are processed at the LWEC Fuel Aggregate Facility (FAF) and delivered to JHWS via an overland pneumatic pipeline. Wood chips are then fed from the overland pneumatic pipeline into a receiving hopper and then onto a belt conveyor leading to the biomass fuel storage building. TDF is proportionally added to the wood chips at the beginning of a second belt conveyor which leads to the boiler. TDF is delivered to, and stored under the second conveyor at JHWS.

Bottom ash and fly ash are collected and transported via closed auger piping to a closed ash storage building. Ash is loaded from the ash storage building into trucks using a front end loader and is transported off site.

SITE INSPECTION

Entry was made, and credentials were presented to Darryl Koski, at 9:20 A.M. on 4/26/2012.

On April 26, 2012 it was approximately 33° Fahrenheit, with cloudy to partly cloudy skies and gusty winds throughout the inspection. It had snowed overnight but no snow was remaining at the time of the inspection.

This inspection of the JHWS focused on storm water.

I observed effluent pond 3, adjacent to the facility entrance and on the northwest side of the generating station (Photo IMGP0924). Storm water and process water is pumped from a sump inside the generating station into effluent pond 3 (Photo IMGP0921 and IMGP0923). I observed that at the time of the inspection a submerged pipe was discharging dark grey, ash colored, water into effluent pond 3 (Photo IMGP0924). 33,000 gallons per day (GPD) of wastewater is discharged from effluent pond 3, which has an approximate capacity of 360,000 gallons (Photo IMGP0925), into Keweenaw Bay, Lake Superior (Photo IMGP0971 and IMGP0972). Darryl Koski stated that discharges are performed manually.

Photo IMGP0924: Effluent pond 3, note the ash colored discharge from the submerged pipe.
Direction: Facing northwest.

Photo IMGP0921: Sump inside of the generating station that discharges to effluent pond 3.
Direction: Facing north.

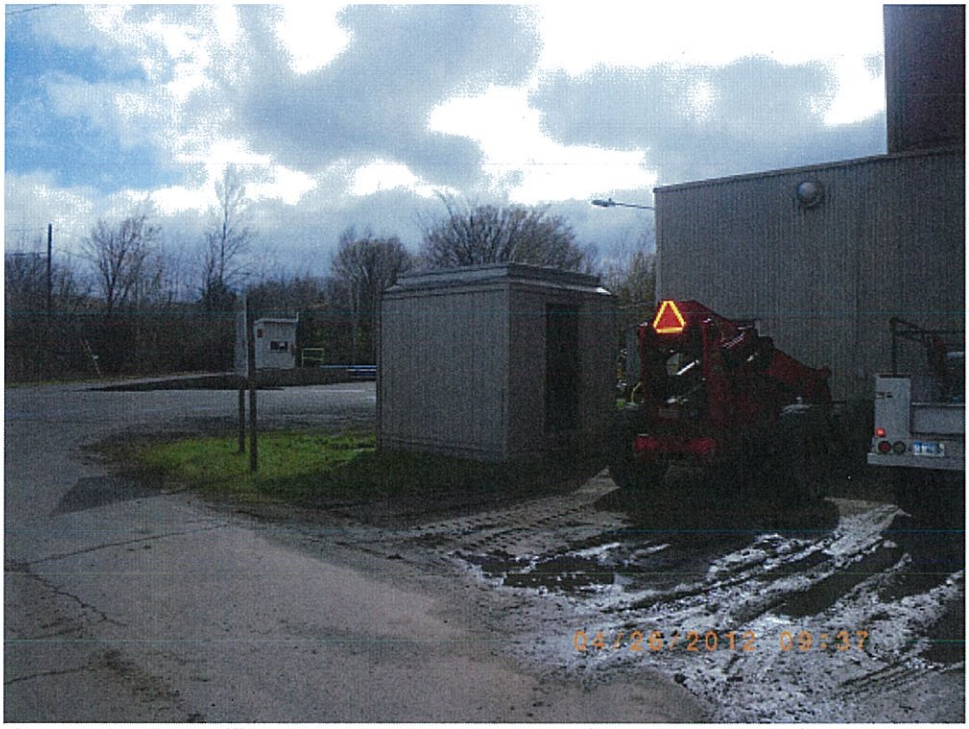


Photo IMGP0923: Effluent pump house on the north side of the generating station.
Direction: Facing east.

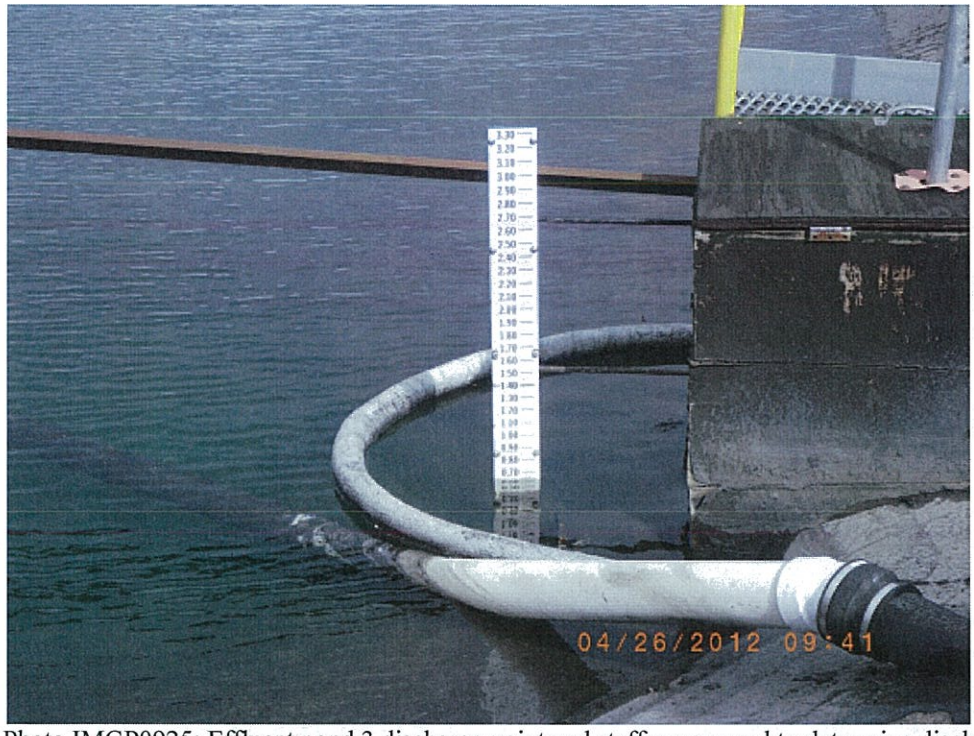


Photo IMGP0925: Effluent pond 3 discharge point and staff gauge used to determine discharge volume. This is also the sampling point for outfall 002.
Direction: Facing north.

Photo IMGP0971: Discharge culvert from outfall 002 into Keweenaw Bay, Lake Superior. Note the generating station, the grey building, in the background.
Direction: Facing southeast.

Photo IMGP0972: Discharge pathway from outfall 002 into Keweenaw Bay, Lake Superior.
Direction: Facing northwest.

I observed the ash collection and handling system that combined and transported both bottom ash and fly ash to the ash storage building (Photo IMGP0926). Ash handling and transport is in a closed system until it is transferred using a front end loader (Photo IMGP0942), from the ash storage building into trucks for removal. On the day of the inspection, I observed ash that had been tracked and spilled outside of the ash storage building (Photo IMGP0929).

Photo IMGP0926: Ash handling system that used a screw auger piping system to move wetted bottom and fly ash from to the ash storage building.
Direction: Facing west.

Photo IMGP0942: Front end loader used to transfer ash with the ash storage building in the background. Direction: Facing northeast.

Photo IMGP0929: Ash that had been tracked and spilled on the asphalt outside of the ash storage building. Direction: Facing west.

I observed the catch basin located next to the old ash storage area, on the northeast side of the generating station. The catch basin received storm water from the areas around the

entire east side of the generating station including the ash handling and transport areas, old ash storage area, and the paved area between the generating station and the maintenance building (Appendix I). This catch basin discharges into effluent pond 3. The catch basin was surrounded by solids, including what I observed as ash (Photo IMGP0927). The area around the catch basin, which included the old ash storage area (Photo IMGP0928), contained particulate debris.

Photo IMGP0927: Catch basin on the northeast side of the generating station that discharges to effluent pond 3.
Direction: Facing northwest.

Photo IMGP0928: Old ash storage area on the northeast side of the generating station. The old ash storage area is adjacent to the storm water catch basin that discharges into effluent pond 3.
Direction: Facing west.

I observed that there was a large berm along the northeast side of the facility. Darryl Koski stated that the berm was an old railroad line (Photo IMGP0930). The berm was greater than 20 feet in height and would prevent any runoff from leaving JHWS to the northeast.

Photo IMGP0930: Berm along the northeast side of JHWS that is a former railroad line. Direction: Facing east.

On the west side of the biomass fuel storage building there are two retention ponds. Together the ponds are called storm water pond 2 (Photo IMGP0932). Darryl Koski stated that these ponds generally stay at the same level, even after precipitation events. There is no surface water discharge point from storm water pond 2. If an overflow occurs from storm water pond 2, water would flow along the southeast side of the wood chip receiving hopper (Photo IMGP0936) and into a culvert (Photo IMGP0937) that led to storm water pond 1 (Photo IMGP0938 and Appendix I).

Photo IMGP0932: Storm water pond 2 which includes two retention ponds along the northeast side of JHWS.
Direction: Facing southeast.

Photo IMGP0936: Flow path for potential overflows from storm water pond 2.
Direction: Facing southwest.

Photo IMGP0937: Culvert inlet (Note the inlet in the front center of the photo covered by a metal sheet and located at the base of the blue metal cover on the ground.) adjacent to the receiving hopper leading to storm water pond 1.
Direction: Facing northwest.

Photo IMGP0938: Culvert outlet and ditch leading to storm water pond 1 in the background.
Direction: Facing west.

Storm water pond 2 receives storm water flow from off of the railroad berm, from the northeast to south side of the biomass fuel storage building and from the area around the receiving hopper and first belt conveyor (Appendix I). I observed that the area under the receiving hopper and first belt conveyor was covered in wood fines (Photo IMGP0935). I observed that wood fines were falling from the first conveyor when I stood on the southwest side of the biomass fuel storage building. The wood fines had accumulated in large piles along the edge of the south storm water pond 2 (Photo IMGP0934).

Photo IMGP0935: Wood fines on the ground underneath the first belt conveyor, note the accumulated piles of wood fines on the right.
Direction: Facing northwest.

Photo IMGP0934: Accumulated wood fines on the edge of the south storm water pond 2.
Direction: Facing east.

I observed that storm water pond 1 had recently been dredged and contained no water during the inspection (Photo IMGP0939 and IMGP 094040). Darryl Koski stated that storm water pond 1 almost never contains water because of rapid infiltration. He also stated that the pond was recently dredged to remove all of the TDF that was in storm water pond 1. Storm water pond 1 receives flow from the asphalted area around the southwest side of the biomass fuel storage building and some areas under the second belt conveyor (Photo IMGP0933 and Appendix I).

Photo IMGP0939: Storm water pond 1 containing no water and recently dredged.
Direction: Facing northwest.

Photo IMGP0940: Storm water pond 1 with the pneumatic conveyor and receiving hopper in the background.
Direction: Facing southeast.

Photo IMGP0933: Second belt conveyor leading to the boiler with the TDF pile underneath.
Direction: Facing northwest.

TDF was proportionally added to the wood chips at the biomass fuel storage building, where some of the TDF was being stored. I observed that most of the TDF on site was stored in a pile underneath the second belt conveyor on the northwest side of the biomass fuel storage building (Photo IMGP0931 and IMGP0933). Runoff from TDF would flow either to storm water pond 2 or into storm water pond 1.

Photo IMGP0931: TDF is stored underneath the second belt conveyor with storm water from the pile flowing both northeast from the front of the pile and southwest from the far side of the pile. Direction: Facing southwest.

I observed that the LWEC had a small sweeper on site (Photo IMGP0941). Darryl Koski stated that the sweeper was recently purchased and that it was used for good housekeeping around JHWS including at the ash loading area.

Photo IMGP0941: Sweeper used to clean up areas of JHWS.
Direction: Facing southwest.

The south side of JHWS is a grassed and wooded area that sloped towards Falls River. The southwest side of the facility that borders Falls River is grassed and contains brush (Photo IMGP0970). I observed no noticeable runoff pathways from JHWS to Falls River.

Photo IMGP0970: Falls River along the southwest side of JHWS.
Direction: Facing south.

I left JHWS at 10:15 A.M to inspect the LWEC fuel aggregation facility. I returned to JHWS at 12:20 P.M. and left the site at 12:30 P.M.

DOCUMENT REVIEW

NPDES Permit MI0006092 was issued on January 14, 2008 and expires at midnight on October 1, 2012. The storm water requirements for JHWS are included in the individual permit, MI0006092. One of the permit requirements is for LWEC to prepare and implement a storm water pollution prevention plan (SWPPP). SWPPP requirements are set forth in Part I Section A(8) of the permit. The permit requires LWEC to keep the SWPPP current through an annual review and amendment process. Annual reviews must be kept on site for three years, in accordance with the record keeping requirements in Part I Section A(8)(g) of the permit. Any changes in the certified storm water operator requirements must be documented and the new operator must review and sign the SWPPP.

I received a copy of the SWPPP for JHWS prior to the inspection. During the inspection, additional documents were requested. The additional requested documents included the current Spill Prevention Control and Countermeasures plan and all records and reports required to be kept in accordance with the SWPPP and the permit. I requested a minimum of two documents for each report type. For some annual reports, documents were requested for the last two years.

Records were received by email after the inspection and reviewed along with the SWPPP and the current NPDES permit, MI0006092.

The following SWPPP deficiencies were identified:

1. The plan did not include a complete list of significant materials that can enter storm water and subsequently be discharged from the facility.
2. For each significant material that was not identified, the following was not present in the SWPPP:
    a. Description of ways that the significant material had reasonable potential to enter storm water.
    b. Identification of outfalls that discharge the significant material.
3. Section 4.0(G), and 7.0(E)(1) of the SWPPP state that ash and solid biomass spills identified would be cleaned up swiftly. This is not consistent with the ash (Photo IMGP0929) and wood fines (Photo IMGP 0935) that I observed on the day of the inspection.
4. Section 4.0(G) of the SWPPP states that all solid fuel would not contact storm water unless a spill occurred and was not cleaned up. This is not consistent with the TDF that was stored outside at the time of the inspection.
5. TDF, the receiving hopper and the conveyor systems were not identified as sources of dust and particulate material.
6. The SWPPP did not contain a complete routine preventative maintenance program.
7. The SWPPP did not contain a complete comprehensive site inspection plan.
8. SWPPP records do not contain a certification of compliance or record of reportable instances of non-compliance that accompanies each comprehensive site inspection plan.
9. Good housekeeping practices do not identify specific locations where each will be implemented.
10. Section 7.0(E)(2) does not mention the small sweeper, it instead states that small spills will be cleaned by manual sweeping.
11. The SWPPP did not contain a description of employee training programs and did not include periodic dates for trainings.
12. The SWPPP does not include structural controls to prevent contaminated storm water from leaving the site for instances when non-structural controls are not sufficient. An example is in Section 8.0 of the SWPPP.
13. The front cover of the SWPPP identifies that the SWPPP was not revised from November 2008 to February 2012.

CONCLUSION

No unpermitted discharges were identified during the site inspection. JHWS was permitted and had a SWPPP at the time of the inspection.

Continued implementation of the current SWPPP will help to mitigate storm water contamination and runoff from JHWS. Good housekeeping practices including sweeping should be done as needed, which may be multiple times daily around areas such as the

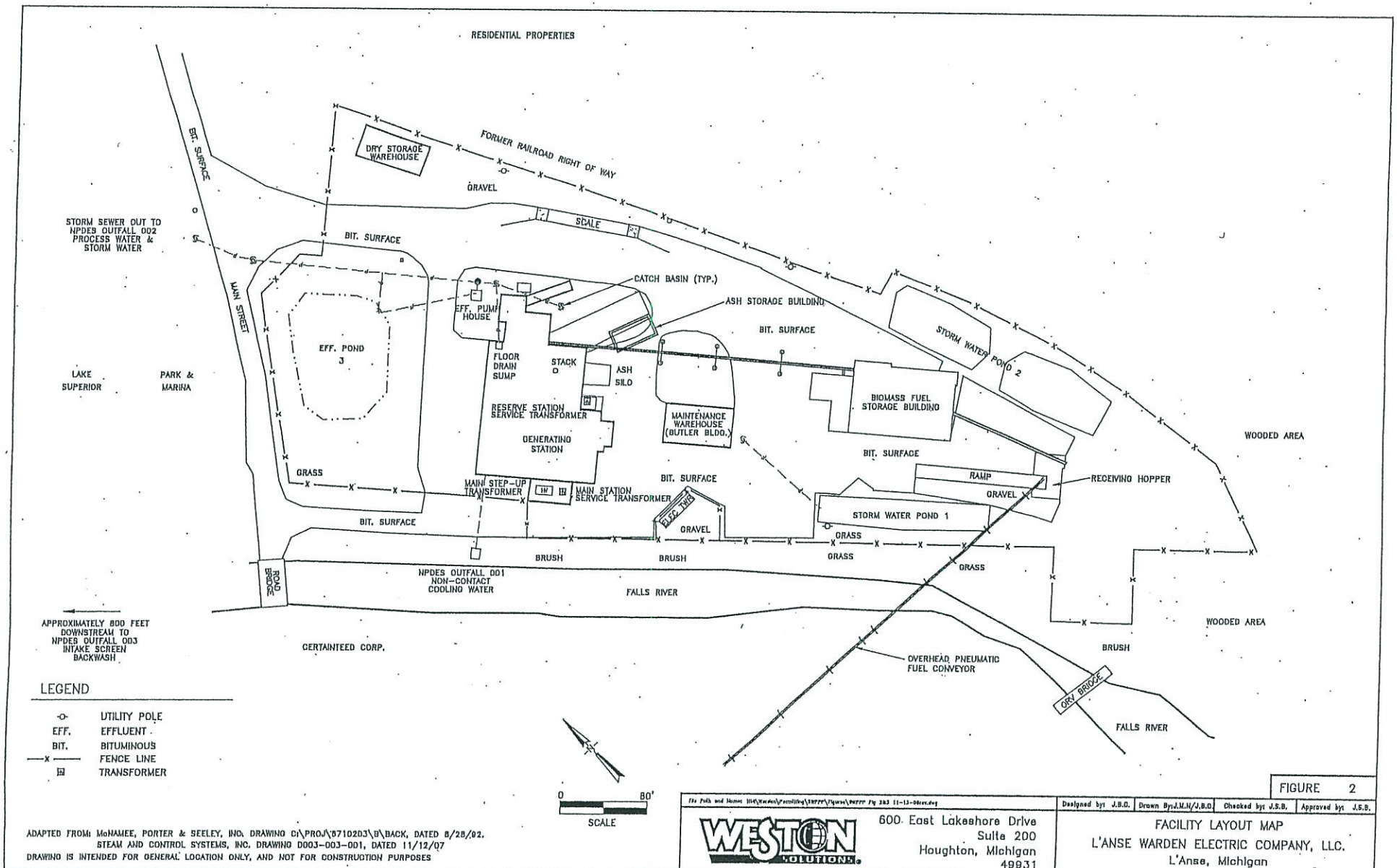
conveyor systems and ash storage building. TDF should be stored were it does not come into direct contact with storm water.

The SWPPP does not adequately represent the current activity at JHWS, and does not contain all requirements identified in permit MI0006092.

DOCUMENTS RECEIVED

1. John H. Warden Station SWPPP.
2. John H. Warden Station Spill Pollution Control and Countermeasures Plan.
3. Water Process Flow Diagram (1 Received).
4. DMR spreadsheet for January 1, 2012 through March 31, 2012.
5. SWPPP Annual Review Form (1 Received) for 2008 through 2012.
6. SWPPP Semi-Annual Inspection for Non-Storm Water Discharge Through Storm Water Discharge Pipe Forms (4 Received) for August 17, 2010 through March 8, 2012.
7. Facility Specific Semi-Annual Comprehensive Facility Inspection Reports (3 Received) for February 11, 2011 through March 8, 2012.
8. 2011 Safety, Health and Environmental Training Records (2 Received).
9. Monthly Routine Preventative Maintenance Forms (13 Received) for April 13, 2011 through April 20, 2012.

APPENDIX I



ADAPTED FROM: McNAMEE, PORTER & SEELEY, INC. DRAWING C:\PROJ\8710203\B\BACK, DATED 8/28/02.
STEAM AND CONTROL SYSTEMS, INC. DRAWING 0003-003-001, DATED 11/12/07
DRAWING IS INTENDED FOR GENERAL LOCATION ONLY, AND NOT FOR CONSTRUCTION PURPOSES

WESTON SOLUTIONS
600 East Lakeshore Drive
Suite 200
Houghton, Michigan
49931

FIGURE 2

Designed by J.B.O. | Drawn By:J.M.N/J.B.O. | Checked by J.S.B. | Approved by J.S.B.

FACILITY LAYOUT MAP
L'ANSE WARDEN ELECTRIC COMPANY, LLC.
L'Anse, Michigan